

FlightSafety International

Westchester Aviation Association – June 15, 2006



Think**Safety**

FlightSafety
international



Safety (*saf'te*) *The condition of being safe; freedom from danger or injury*



Security (*si-kyoor'i-te*) *Gives or assures safety*



Training (*tra'ning*) *To make proficient with specialized instruction and practice*

Simulator Based Training

- The earliest documented use of simulation for training purposes was by the Roman Empire



“For they had learned that true safety was to be found in long previous training, and not in eloquent exhortations uttered when they were going into action.”
– Thucydides, circa 404 B.C.

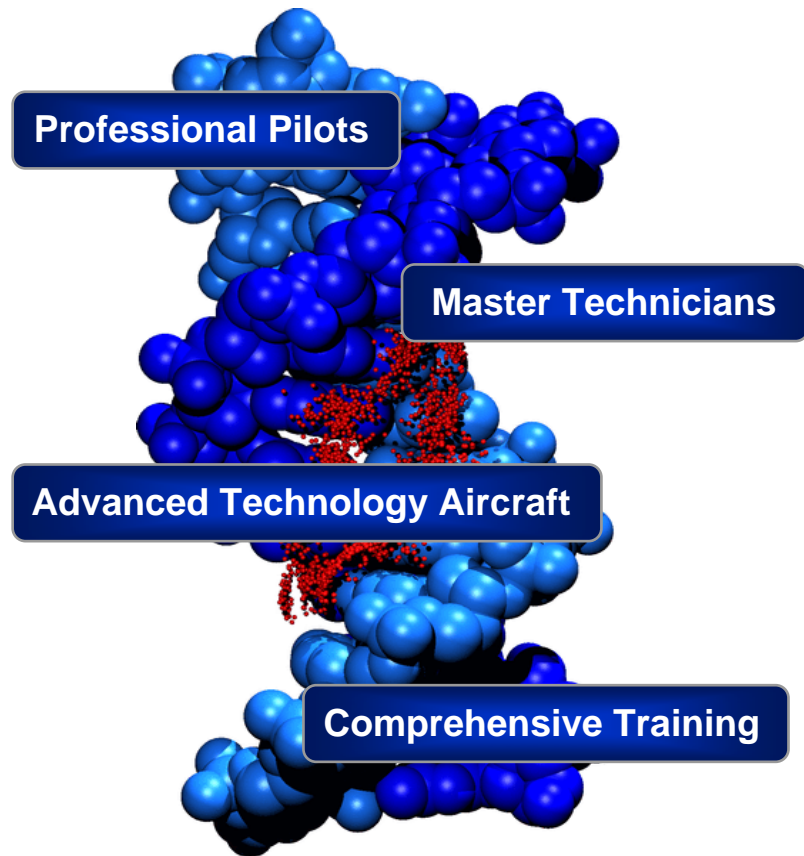
Simulator Based Flight Training

- One of the first known flight training devices, circa 1910, offered pitch and roll capabilities and a horizon reference bar used to maintain “level flight”



*“Trouble in the air is very rare. It is hitting the ground that causes it.”
– Amelia Earhart*

Business Aviation – Safety is in our DNA

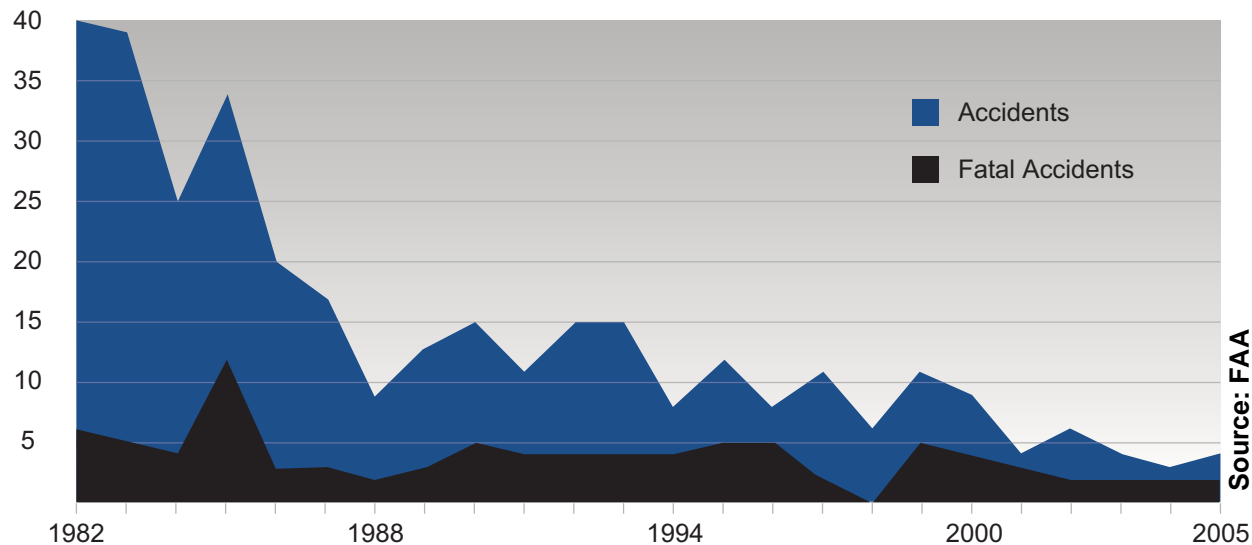


- Business aviation is committed to safety and security
- It is the focus of the aviation professionals that operate and maintain the aircraft
- The advanced technology aircraft we fly are manufactured and certified to the highest standards for safety
- The operating procedures we follow and safety-centered training programs and equipment we use ensure the safety of passengers, crew and aircraft

“I'd hate to see an epitaph on a fighter pilot's tombstone that says, 'I told you I needed training.' ” – Col. “Boots” Boothby, USAF

Safety – U.S. Corporate Aviation Accidents, 1982-2005

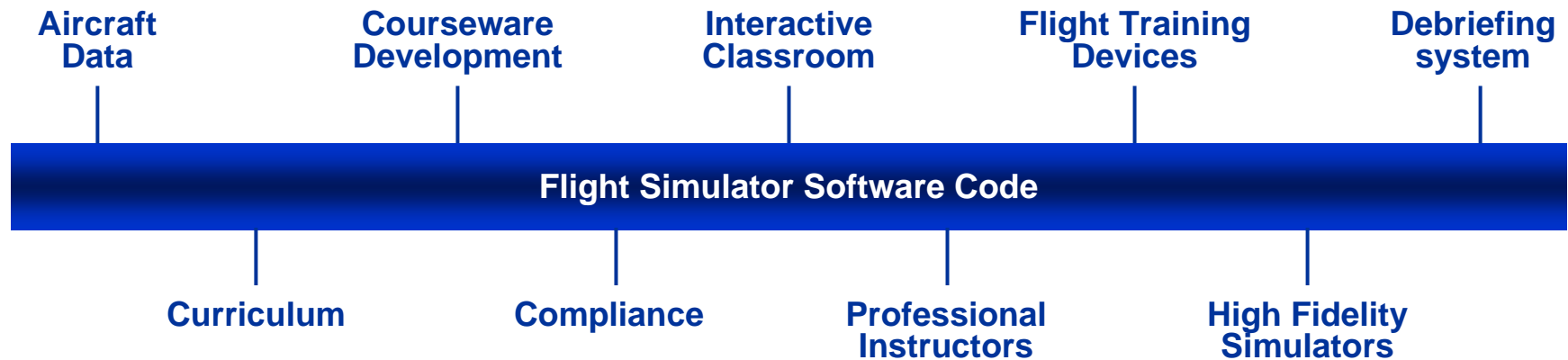
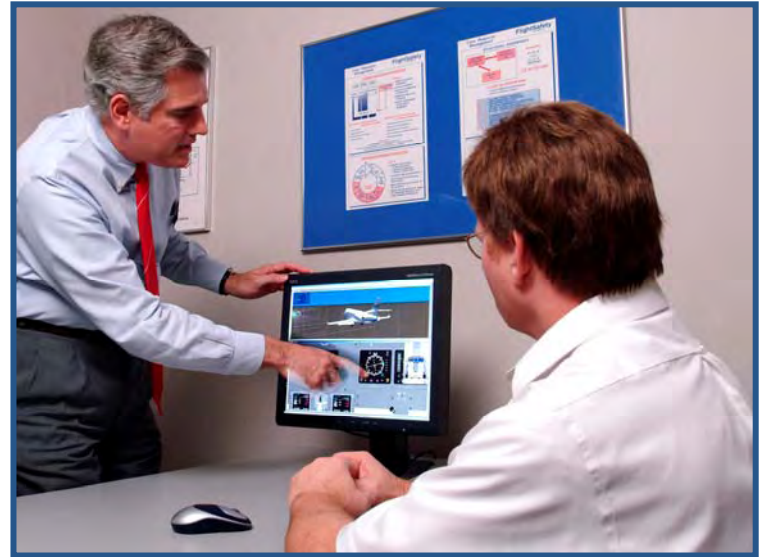
- Aircraft operated by professional flight crews continue to have an excellent safety record
- The number of accidents caused by mechanical failure has declined more rapidly than those caused by human factors



“Eighty-five percent – some say 100 percent – of all accidents involve human factors.” – Stuart Matthews, President and CEO, Flight Safety Foundation

Training for Safety- Program Elements

- Interaction and cooperation with the aircraft manufacturer
- Robust curriculum and courseware
- Regulatory authority compliance
- Course delivery
- Professional instructors
- Advanced technology devices
- Debriefing system



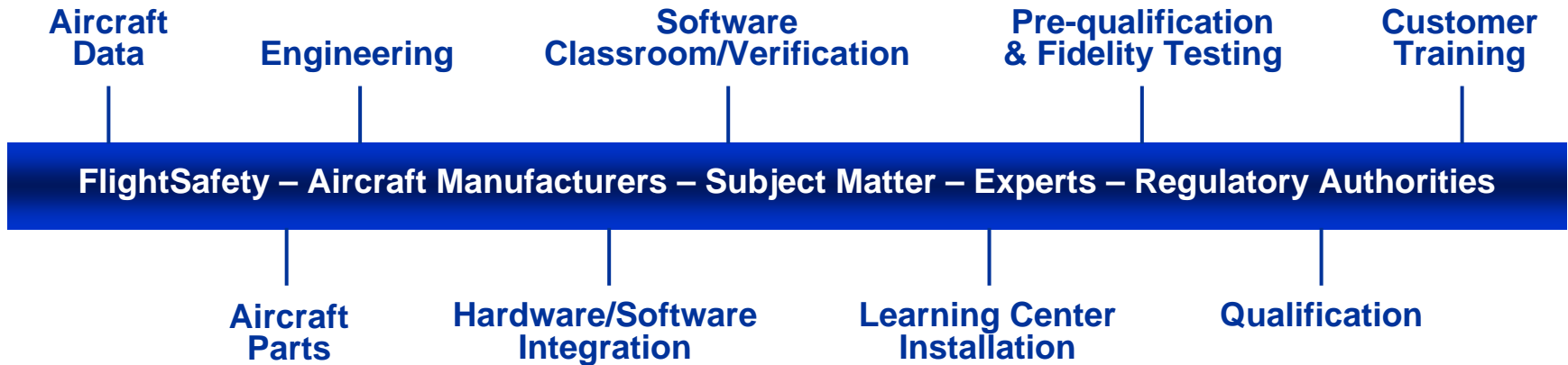
Advances in Simulation

- Recent advances in simulation technology have increased fidelity and created a more secure training environment
- FlightSafety has designed, manufactured and installed the world's first business aircraft simulator equipped with electric motion and control loading
 - Enhances motion fidelity, eliminates the need for hydraulic fluids and reduces ambient noise and energy consumption
- The new VITAL X visual system offers high-resolution direct image display system with 360 degrees of view for helicopter training
- It offers a virtual infinity visual display system with images that closely match real world detail when configured for fixed-wing aircraft



Simulation

- The process of building advanced technology flight simulators includes the aircraft manufacturer and key component suppliers, the simulator manufacturer, subject matter experts and regulatory authorities
- All are involved during the design, manufacturing, qualification and entry into service phase of each new simulator



Courseware and Compliance

- Courseware designers and engineers translate the software code used to control the flight simulators into training curriculums, programs and course materials
- They are also responsible for the design, development and distribution of the materials
- They must ensure that the training is compliant with FAA, JAA, EASA and Transport Canada authorities

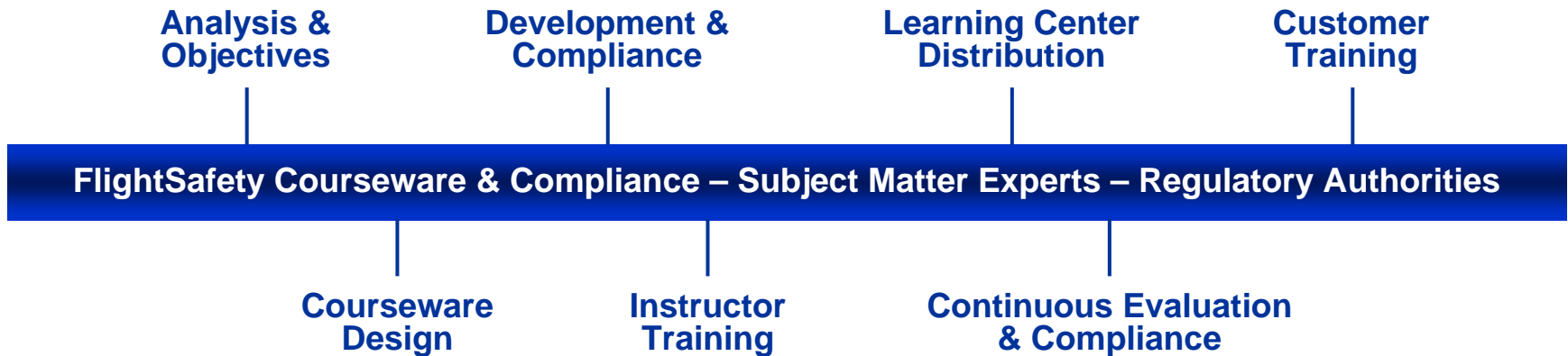


“What is the cause of most aviation accidents: Usually it is because someone does too much too soon, followed very quickly by too little too late.”

– Steve Wilson, NTSB investigator

Courseware and Compliance

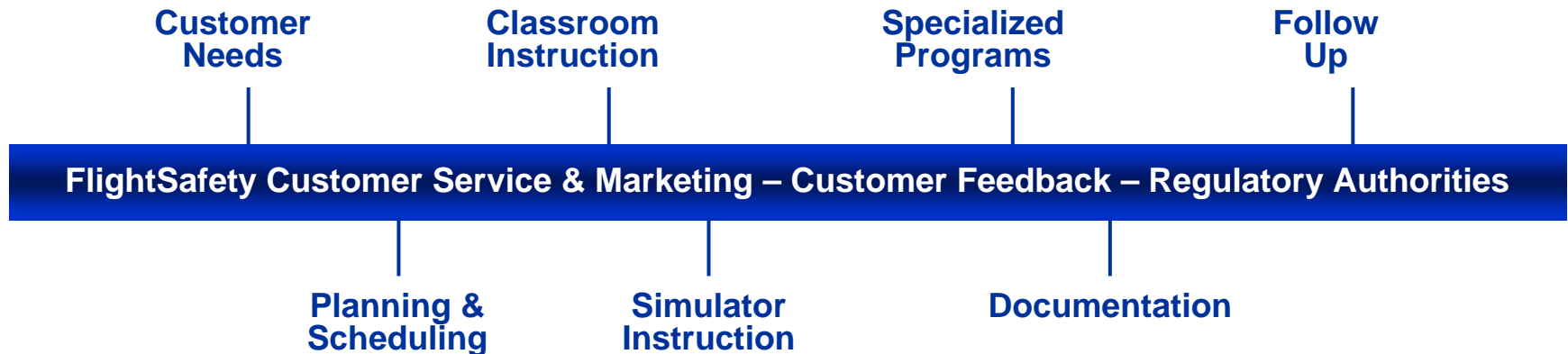
- A detailed analysis of training needs and objectives leads to courseware design, the development of materials and their compliance, training of the instructors and then customer training



- Subject matter experts help to ensure technical accuracy and instructional soundness
- Experienced, highly qualified instructors participate throughout the courseware design and development process

Customized Training

- Achieving the highest levels of proficiency can involve the development and delivery of training programs and packages tailored to the individual needs of the customer



- A detailed training audit program can be performed, especially for larger flight departments
- eLearning & on-line training management tools can increase efficiency and improve record distribution and management

General Aviation

- The recent resurgence of smaller single and twin engine aircraft has increased the need for safety-centered training
- Available programs include:
 - Pilot enrichment training
 - Wind shear recognition and alert
 - Turbine transition training
 - High altitude physiology
 - Simulator-based differences training
- Training programs designed specifically for pilots of new generation small jet aircraft (VLJ's) require a new approach
- Cessna Citation Mustang training program includes a training “Road Map” to proficiency and a Pilot Mentor Services program

*“It's better to miss the lead story at 6 . . . than to become the lead story at 11.”
– Bruce Erion, President of the National Broadcast Pilots Association*

Hypoxia Awareness Training

- Hypoxia affects judgment, reasoning and decision-making and can result in apathy and loss of consciousness
- A new safer, more efficient method of Hypoxia Awareness training has been developed in conjunction with Mayo Clinic
- Training is conducted in a flight simulator eliminating the use of a hypobaric chamber



“Oxygen deprivation can cause insidious, debilitating symptoms. If pilots recognize these symptoms, they can begin using supplemental oxygen and take other emergency measures to ensure the safety of their passengers and aircraft.”

– Jan Stepanek, M.D., Mayo Clinic Internal Medicine, Aerospace Medicine Specialist.

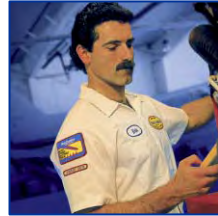
New Advances in Simulator-Based Training

- The Graphical Flight Simulator LNV is a new portable PC-based simulator training system
- It features touch screen technology, high fidelity electric control loading system and a full visual systems
- It can be configured to most helicopters and fixed-wing aircraft types
 - Applications include: EMS, firefighting, law enforcement, search and rescue, maintenance training, hypoxia awareness and other specialized needs
- The high-resolution VITAL X visual system offers imagery presented in lifelike detail
- The electric control loading transmits motion cues to the pilot to enhance realism
- The trainer can be installed onsite at remote locations or operate from a trailer or container



Passenger Safety

- A new one-day training program designed specifically for business aircraft passengers
- Provides an overview of aircraft passenger safety
- Summarizes aircraft systems and operation for “non-aviation” people
 - Helps them understand and appreciate the responsibility and actions of the aircraft crew
- Highlights the importance and advantages of flying with experienced, well-trained pilots and flight attendants on aircraft maintained to the highest standards by skilled maintenance technicians



“The alleviation of human error, whether design or intrinsically human, continues to be the most important problem facing aerospace safety.”

*- Jerome Lederer, Founding Director, Flight Safety Foundation,
NASA, Director of Safety*



*FlightSafety Video Presentation
Copies are available here today*

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